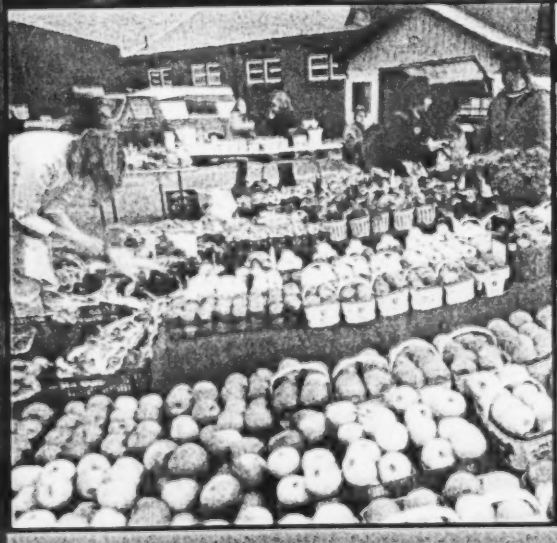
Ontario

Ministry of Agriculture and Food

# Agricultural Research Institute of Ontario

## Annual Report 2002 - 2003



http://www.gov.on.ca/OMAF/english/research/index.html

# Agricultural Research Institute of Ontario

Annual Report 2002 - 2003

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Cover Photos: Martin Schwalbe and Office of Research, University of Guelph

Top: (left to right) Ellen Klupfel, Ellen Wall and Barry Smit are promoting effective adaptation strategies for Canadian agriculture, in response to climate change.

Middle: Together with their students, collaborators, and partners from across the country, Reid Kreutzwiser (left) and Rob de Loë (right) are studying ways of building local capacity to provide clean water in four Ontario watersheds.

Bottom left: Guelph Farmers' Market

Bottom right: John Lauzon (left) and Bill Deen (right) are increasing the study scale of precision agriculture from small plots to entire fields, to better reveal the interactions of soils, landscape and crop yields.

# Ministry Vision and Role of ARIO

## Ministry Vision

***Ontario - an innovative world leader in responsible, sustainable and environmentally sound agriculture, food and rural development.***

The ministry core businesses to fulfill this vision are:

- agriculture and rural economic development/research and technology transfer;
- investment and market development;
- risk management.

## Role of the Agricultural Research Institute of Ontario (ARIO)

The Agricultural Research Institute of Ontario is a corporate advisory body reporting to the Minister of Agriculture and Food. It was created under the ARIO Act (1962) with the following specific duties:

- to inquire into programs of research with respect to agriculture, food, veterinary medicine and rural studies;
- to select and recommend areas of research for the betterment of agriculture, food, veterinary medicine and rural studies, and;
- to stimulate interest in research as a means of developing a high degree of efficiency in the production and marketing of agricultural products.

## 2002 - 2003 ARIO Members

Ginty Jocius, Chair, beginning January 1, 2002
Bruce Christie, Vice Chair, beginning January 1, 2002
Deborah Stark, Director of Research
Andrew Pulcins, Comptroller
Leah Jones, Recording Secretary

Jom Aw
Douglas Cleary
Alma Conn
Peter Connell
Terry Cowan
Graeme Hedley, Past Chair
Yvon Martel (ex-officio)
Janet Parsons
Tom Sanderson
Tom Van Dusen
Jim Vidoczy
Jeff Wilson

Secretariat to ARIO is provided by the Innovation and Risk Management Branch.
Director: Dr. Maurice Bitran

104-02804/

# Letter from the Chair

Guelph, Ontario
June 30, 2003

Minister of Agriculture and Food
Legislative Buildings
Toronto, Ontario M7A 1A3

Dear Minister:

I have the honour to submit the thirty-ninth report of the Agricultural Research Institute of Ontario for the period April 1, 2002 to March 31, 2003.

Members of the ARIO are privileged to make recommendations for research funding and to work with research staff of the highest calibre at the University of Guelph and other universities, Agriculture & Agri-Food Canada and industry stakeholders.

This report summarizes the activity of the ARIO over the past fiscal year. We welcome the opportunity to share the information with you.

Ginty Jocius P. Ag
Chair
Agricultural Research Institute of Ontario

# Chair's Report

ARIO members had the privilege of providing strategic direction to three dynamic agri-food and rural research programs during 2002-03. They reviewed the past accomplishments and future plans of the Plants, Sustainable Rural Communities, and Resources Management and Environment programs, funded by the Ontario Ministry of Agriculture and Food (OMAF) at the University of Guelph.

Over the last four years, the Plant Research Program has produced 40 new and improved field crop varieties or inbred lines, advanced the expression of animal vaccines in plants, and provided HACCP-related research for on-farm food safety programs at Ontario produce farms, among many other accomplishments. The new Plant Research Program places further emphasis on biotechnology, environment, food safety and nutraceuticals, supporting a bio-based economy.

The Resources Management and Environment Program continues to provide important scientific information for the ministry's nutrient management programs. It also supports the Kyoto Protocol by helping agriculture develop carbon sinks and reduced greenhouse gas emissions. Major issues to be addressed in future research include climate change, evaluation of best management practices, efficient nutrient and waste management, and reducing threats to water resources. The program also balances business needs with biophysical factors and researches improved risk management, innovation, development of market opportunities and enhanced agri-food business management.

The Sustainable Rural Communities Program reflects the needs of a rapidly changing rural landscape. The results of research in rural education and health, service delivery and labour markets provide direction for government policy and planning. These and other critical issues, such as impacts of rural economic development on the physical environment will be examined in the future research program.

In ARIO's strategic review of all of these programs, the Ontario Agricultural Services Coordinating Committee (OASCC) has played a valuable role in providing informed opinion on research priorities. We are pleased that ARIO has been able to take a lead role in the development of an R&D strategy for OMAF and look forward to continuous improvement in addressing the research needs of agri-food and rural clients.

Ginty Jocius P. Ag
Chair
Agricultural Research Institute of Ontario

# Director's Report

It's been an exciting year in agricultural research worldwide. Rapid advances in life sciences point to quickly evolving opportunities for Ontario agricultural products, not only as food and feed, but for value-added use in a bio-based economy. Strong provincial research funding and direct links to innovative projects like Soy 20/20 and MaRS (Medical and Related Sciences) Landing mean new significance for agriculture in the health and economic well-being of Ontarians.

Health related research for rural water took on added importance in the past year. In June 2002, the provincial Nutrient Management Act was passed into legislation. The basis of the Act and regulations now being developed is sound science generated by ongoing research. ARIO members had the opportunity to provide strategic direction for the Resources Management and Environment Program, under which existing nutrient management research is funded. Improved public safety was also the goal of the Ministry's continuing Food Safety Program, which funds research for food testing methods, identification and risk management of hazards and contaminants.

On April 1, 2002, the agreement between the Ministry and the University of Guelph for delivery of research, education and laboratory services was renewed for a second five-year term. The annual transfer payment to the University makes possible the leveraging of additional research dollars from other government and private sector sources, so that benefits of the investment are multiplied.

OMAF and Agriculture & Agri-Food Canada worked together to further the objectives of the national Agriculture Policy Framework. Science and innovation are cornerstones of the strategy to make the Canadian agriculture and agri-food sector the world leader in product safety and quality, and environmental responsibility.

On the provincial front, I am pleased with ARIO's leadership in the development of an options paper for a new R&D strategy. In the current dynamic research environment, a clear roadmap is essential to guide the ministry's research efforts over the next decade. The strategy will complement the valuable findings of the Premier's 2002 Round Table sessions.

I look forward with optimism to the next year of innovative research, and thank the members of ARIO for their dedication to this important task.

Deborah Stark, DVM
Director of Research,
Agricultural Research Institute of Ontario

# Financial Information

## Auditor's Report

RL&B

ROBINSON LOTT & BROHMAN LLP

*Chartered Accountants and Business Advisors*

To the Director of Agricultural
Research Institute of Ontario

We have audited the combined balance sheet of the Research Trust Funds of the Agricultural Research Institute of Ontario ("ARIO") as at March 31, 2003 and the combined statement of revenue and expenses for the year then ended. These financial statements are the responsibility of ARIO's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Research Trust Funds of the Agricultural Research Institute of Ontario as at March 31, 2003 and the results of their operations for the year then ended in accordance with Canadian generally accepted accounting principles.

Robinson Lott & Brohman LLP

Guelph, Ontario
July 24, 2003

Chartered Accountants

# Financial Information

## Research Trust Funds

*Combined Balance Sheet*

*As at March 31, 2003*

| | ARIO (note 3) $ | Enhanced Food Quality and Safety $ | Ethanol Research $ | Food Systems 2002 $ | VMAP $ | Niagara Tender Fruit Lands $ | New Directions in Research $ | ISFRATT $ | Food Safety | Healthy Futures $ | Eliminations $ | March 31 2003 Total $ | March 31 2002 Total $ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | | | | | | | |
| Cash and cash equivalents | 13,714,781 | | | | | | | | | 16,790,531 | | 30,505,312 | 47,639,434 |
| Due from ARIO | | 213,376 | 204,069 | | 612,622 | 3,283,447 | 6,136,069 | | 1,986,406 | | (12,435,989) | 0 | 0 |
| Accounts receivable | 94,191 | 1,632 | 1,579 | | 4,703 | 25,241 | 47,156 | | 15,290 | 22,241 | | 212,033 | 601,594 |
| Recoverable from Ontario Provincial Government | | | | | | | | | | 28,370,984 | | 28,370,984 | 20,421,873 |
| Advance | | | | | | | | | | | | 0 | 0 |
| Land | 9,793 | | | | | | | | | | | 9,793 | 9,793 |
| | 13,818,765 | 215,008 | 205,648 | 0 | 617,325 | 3,308,688 | 6,183,225 | 0 | 2,001,696 | 45,183,756 | (12,435,989) | 59,098,122 | 68,672,694 |
| **Liabilities** | | | | | | | | | | | | | |
| Due to other research trust funds | 12,435,989 | | | | | | | | | | (12,435,989) | 0 | 0 |
| Accounts payable | 225,539 | | | | | | 99,210 | | 69,758 | 2,019,576 | | 2,414,083 | 1,175,223 |
| Unclaimed expenditures | 425,153 | | | | 60,000 | | 1,652,381 | | 1,692,301 | 43,164,180 | | 46,994,015 | 57,824,159 |
| Holdbacks | | 8,114 | | | | | 132,228 | | 102,518 | | | 242,860 | 294,951 |
| Liability for dissolution of program (note 4) | | | | | | 3,308,688 | | | | | | 3,308,688 | 3,214,428 |
| | 13,086,681 | 8,114 | 0 | 0 | 60,000 | 3,308,688 | 1,883,819 | 0 | 1,864,577 | 45,183,756 | | 52,959,646 | 62,508,761 |
| **Fund balance** | 732,084 | 206,894 | 205,648 | 0 | 557,325 | 0 | 4,299,406 | 0 | 137,119 | 0 | | 6,138,476 | 6,163,933 |
| | 13,818,765 | 215,008 | 205,648 | 0 | 617,325 | 3,308,688 | 6,183,225 | 0 | 2,001,696 | 45,183,756 | (12,435,989) | 59,098,122 | 68,672,694 |

*See accompanying notes*

# Financial Information

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To the Director of Agricultural
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We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Research Trust Funds of the Agricultural Research Institute of Ontario as at March 31, 2003 and the results of their operations for the year then ended in accordance with Canadian generally accepted accounting principles.

Robinson Lott & Brohman LLP

Guelph, Ontario
July 24, 2003

Chartered Accountants

# Financial Information

## Research Trust Funds

*Combined Balance Sheet*

*As at March 31, 2003*

| | ARIO (note 3) | Enhanced Food Quality and Safety | Ethanol Research | Food Systems 2002 | VMAP | Niagara Tender Fruit Lands | New Directions in Research | ISFRATT | Food Safety | Healthy Futures | Eliminations | March 31 2003 Total | March 31 2002 Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ | $ | | $ | $ | $ | $ |
| **Assets** | | | | | | | | | | | | | |
| Cash and cash equivalents | 13,714,781 | | | | | | | | | 16,790,531 | | 30,505,312 | 47,639,434 |
| Due from ARIO | | 213,376 | 204,069 | | 612,622 | 3,283,447 | 6,136,069 | | 1,986,406 | | (12,435,989) | 0 | 0 |
| Accounts receivable | 94,191 | 1,632 | 1,579 | | 4,703 | 25,241 | 47,156 | | 15,290 | 22,241 | | 212,033 | 601,594 |
| Recoverable from Ontario Provincial Government | | | | | | | | | | 28,370,984 | | 28,370,984 | 20,421,873 |
| Advance | | | | | | | | | | | | 0 | 0 |
| Land | 9,793 | | | | | | | | | | | 9,793 | 9,793 |
| | 13,818,765 | 215,008 | 205,648 | 0 | 617,325 | 3,308,688 | 6,183,225 | 0 | 2,001,696 | 45,183,756 | (12,435,989) | 59,098,122 | 68,672,694 |
| **Liabilities** | | | | | | | | | | | | | |
| Due to other research trust funds | 12,435,989 | | | | | | | | | | (12,435,989) | 0 | 0 |
| Accounts payable | 225,539 | | | | | | 99,210 | | 69,758 | 2,019,576 | | 2,414,083 | 1,175,223 |
| Unclaimed expenditures | 425,153 | | | | 60,000 | | 1,652,381 | | 1,692,301 | 43,164,180 | | 46,994,015 | 57,824,159 |
| Holdbacks | | 8,114 | | | | | 132,228 | | 102,518 | | | 242,860 | 294,951 |
| Liability for dissolution of program (note 4) | | | | | | 3,308,688 | | | | | | 3,308,688 | 3,214,428 |
| | 13,086,681 | 8,114 | 0 | 0 | 60,000 | 3,308,688 | 1,883,819 | 0 | 1,864,577 | 45,183,756 | | 52,959,646 | 62,508,761 |
| **Fund balance** | 732,084 | 206,894 | 205,648 | 0 | 557,325 | 0 | 4,299,406 | 0 | 137,119 | 0 | | 6,138,476 | 6,163,933 |
| | 13,818,765 | 215,008 | 205,648 | 0 | 617,325 | 3,308,688 | 6,183,225 | 0 | 2,001,696 | 45,183,756 | (12,435,989) | 59,098,122 | 68,672,694 |

***See accompanying notes***

# Financial Information

## Research Trust Funds

*Combined Statement of Revenue and Expenses*

*As at March 31, 2003*

| | ARIO (note 3) | Enhanced Food Quality and Safety | Ethanol Research | Food Systems 2002 | VMAP | Niagara Tender Fruit Lands | New Directions in Research | ISFRATT | Food Safety | Healthy Futures | March 31 2003 Total | March 31 2002 Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| **Revenue** | | | | | | | | | | | | |
| Grant income | 24,000 | | 100,000 | | | | 1,350,000 | | 1,340,000 | | 2,814,000 | 3,199,247 |
| Revenue and royalties | 510,676 | | | | | | | | | | 510,676 | 1,002,057 |
| Investment income | 50,374 | 7,235 | 5,768 | 3,785 | 19,391 | 101,230 | 186,030 | | 59,281 | 629,704 | 1,062,798 | 1,775,243 |
| | 585,050 | 7,235 | 105,768 | 3,785 | 19,391 | 101,230 | 1,536,030 | 0 | 1,399,281 | 629,704 | 4,387,474 | 5,976,547 |
| **Expenses** | 494,352 | 46,039 | 327 | 352 | 67,371 | 6,969 | 1,413,430 | | 1,047,765 | 19,812,189 | 22,888,794 | 10,095,586 |
| **Investment write down** | | | | | | | | | | | 0 | 24,800 |
| **Liability for dissolution of program** (note 4) | | | | | | 94,261 | | | | | 94,261 | (1,736,134) |
| **Net revenue (expenses)** | 90,698 | (38,804) | 105,441 | 3,433 | (47,980) | 0 | 122,600 | 0 | 351,516 | (19,182,485) | (18,595,581) | (2,407,705) |
| **Fund balance - Beginning of year** | 866,727 | 200,192 | 100,207 | 152,405 | 539,305 | 0 | 4,075,193 | 8,398 | 422,546 | 0 | 6,163,933 | 23,579,804 |
| **Net amount transferred from (to) unclaimed Expenditures** | (425,153) | 45,506 | | | 66,000 | | (54,225) | | (236,943) | 11,434,959 | 10,830,144 | (35,430,039) |
| **Net amount to be recovered by advance from Ontario Provincial Government or assumption of program liabilities by Ontario Provincial Government** | | | | | | | | | | 7,747,526 | 7,747,526 | 20,421,873 |
| **Net amount returned to the Ontario Provincial Government** | | | | | | | | (7,546) | | | (7,546) | 0 |
| **Inter fund transfer** | 400,812 | | | (155,838) | | | 155,838 | (812) | (400,000) | | 0 | 0 |
| **Fund balance - end of year** | 732,084 | 206,894 | 205,648 | 0 | 557,325 | 0 | 4,299,406 | 0 | 137,119 | 0 | 6,138,476 | 6,163,933 |

*See accompanying notes*

# Financial Information

## Notes to the Financial Statements
### For the year ending March 31, 2003

### 1. NATURE OF BUSINESS

The Agricultural Research Institute of Ontario (ARIO) is a non-profit corporate body reporting directly to the Minister of Agriculture and Food. It was created by the ARIO Act (1962) with specific responsibilities over the co-ordination and direction of agricultural research programs in Ontario. These programs relate to a broad range of commodities and disciplines, covering all aspects of the agri-food system. In addition, ARIO holds funds for the Vegetation Management Alternatives Program research fund on behalf of the Ministry of Natural Resources, and all funding is provided by the Ministry of Natural Resources.

Funding for programs supported by the ARIO is available from two sources. The Ontario Government, through the Ministry of Agriculture and Food, is the primary source of funding. The private sector also provides funds for research through the ARIO. Under the ARIO Act, the Institute may accept grants and donations for research. These funds usually come from commercial sources (such as agri-business, marketing boards, and producer associations) and can be either designated for specific projects or non-designated. In addition, with the approval of the Minister of Agriculture and Food, the ARIO is able to hold patents and earn royalties on research developments.

All receipts are held in trust by the Director of Research and are allocated in accordance with the terms of the funds.

The research funds that are currently held by ARIO are:

- Agricultural Research Institute of Ontario (ARIO)
- Enhanced Food Quality and Safety (EFQS)
- Ethanol Research
- Food Systems 2002
- Vegetation Management Alternatives Program (VMAP)
- Niagara Tender Fruit Lands Program
- New Directions in Agri-Food and Rural Research Program (formerly named Special Research Program)
- Ice Storm Forest Research and Technology Transfer (ISFRATT)
- Food Safety
- Healthy Futures

### 2. SIGNIFICANT ACCOUNTING POLICIES

(a) INVESTMENTS

All investments are carried at the lower of cost plus accrued interest or fair market value and are recorded on the trade date basis.

(b) UNCLAIMED EXPENDITURES

Unclaimed expenditures are defined as the total approved budget for competitive research projects less expenses incurred to date.

(c) INCOME TAXES

ARIO is not subject to income taxes.

# Financial Information

## Research Trust Funds

*Combined Statement of Revenue and Expenses*

*As at March 31, 2003*

| | ARIO (note 3) | Enhanced Food Quality and Safety | Ethanol Research | Food Systems 2002 | VMAP | Niagara Tender Fruit Lands | New Directions in Research | ISFRATT | Food Safety | Healthy Futures | March 31 2003 Total | March 31 2002 Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| **Revenue** | | | | | | | | | | | | |
| Grant income | 24,000 | | 100,000 | | | | 1,350,000 | | 1,340,000 | | 2,814,000 | 3,199,247 |
| Revenue and royalties | 510,676 | | | | | | | | | | 510,676 | 1,002,057 |
| Investment income | 50,374 | 7,235 | 5,768 | 3,785 | 19,391 | 101,230 | 186,030 | | 59,281 | 629,704 | 1,062,798 | 1,775,243 |
| | 585,050 | 7,235 | 105,768 | 3,785 | 19,391 | 101,230 | 1,536,030 | 0 | 1,399,281 | 629,704 | 4,387,474 | 5,976,547 |
| **Expenses** | 494,352 | 46,039 | 327 | 352 | 67,371 | 6,969 | 1,413,430 | | 1,047,765 | 19,812,189 | 22,888,794 | 10,095,586 |
| **Investment write down** | | | | | | | | | | | 0 | 24,800 |
| **Liability for dissolution of program** (note 4) | | | | | | 94,261 | | | | | 94,261 | (1,736,134) |
| **Net revenue (expenses)** | 90,698 | (38,804) | 105,441 | 3,433 | (47,980) | 0 | 122,600 | 0 | 351,516 | (19,182,485) | (18,595,581) | (2,407,705) |
| **Fund balance - Beginning of year** | 665,727 | 200,192 | 100,207 | 152,406 | 539,305 | 0 | 4,075,193 | 8,358 | 422,546 | 0 | 6,163,933 | 23,579,804 |
| **Net amount transferred from (to) unclaimed Expenditures** | (425,153) | 45,506 | | | 66,000 | | (54,225) | | (236,943) | 11,434,959 | 10,830,144 | (35,430,039) |
| **Net amount to be recovered by advance from Ontario Provincial Government or assumption of program liabilities by Ontario Provincial Government** | | | | | | | | | | 7,747,526 | 7,747,526 | 20,421,873 |
| **Net amount returned to the Ontario Provincial Government** | | | | | | | | (7,546) | | | (7,546) | 0 |
| **Inter fund transfer** | 400,812 | | | (155,838) | | | 155,838 | (812) | (400,000) | | 0 | 0 |
| **Fund balance - end of year** | 732,084 | 206,894 | 205,648 | 0 | 557,325 | 0 | 4,299,406 | 0 | 137,119 | 0 | 6,139,476 | 6,163,933 |

***See accompanying notes***

# Financial Information

## Notes to the Financial Statements

**For the year ending**

**March 31, 2003**

### 1. NATURE OF BUSINESS

The Agricultural Research Institute of Ontario (ARIO) is a non-profit corporate body reporting directly to the Minister of Agriculture and Food. It was created by the ARIO Act (1962) with specific responsibilities over the co-ordination and direction of agricultural research programs in Ontario. These programs relate to a broad range of commodities and disciplines, covering all aspects of the agri-food system. In addition, ARIO holds funds for the Vegetation Management Alternatives Program research fund on behalf of the Ministry of Natural Resources, and all funding is provided by the Ministry of Natural Resources.

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All receipts are held in trust by the Director of Research and are allocated in accordance with the terms of the funds.

The research funds that are currently held by ARIO are:

- Agricultural Research Institute of Ontario (ARIO)
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- Ethanol Research
- Food Systems 2002
- Vegetation Management Alternatives Program (VMAP)
- Niagara Tender Fruit Lands Program
- New Directions in Agri-Food and Rural Research Program (formerly named Special Research Program)
- Ice Storm Forest Research and Technology Transfer (ISFRATT)
- Food Safety
- Healthy Futures

### 2. SIGNIFICANT ACCOUNTING POLICIES

(a) INVESTMENTS

All investments are carried at the lower of cost plus accrued interest or fair market value and are recorded on the trade date basis.

(b) UNCLAIMED EXPENDITURES

Unclaimed expenditures are defined as the total approved budget for competitive research projects less expenses incurred to date.

(c) INCOME TAXES

ARIO is not subject to income taxes.

# Financial Information

## Notes to the Financial Statements

**For the year ending March 31, 2003**

3d) RESTRICTIONS ON THE EXPENDITURE OF FUNDS

The purpose, funding, terms and conditions, and duration of each research trust fund are stipulated in the relevant Order-in-Council, Memorandum of Understanding or Ministry correspondence.

3e) FINANCIAL INSTRUMENTS

Carrying amounts of the organization's financial instruments including cash, accounts receivable, prepaid expenses, accounts payable, unclaimed expenditures and holdbacks approximate fair value due to their short maturities.

### 3. ARIO RESEARCH FUND

| | Designated Funds | Seed Royalty | Technology Royalty | Unpledged Equity | Total 2003 | Total 2002 |
|---|---|---|---|---|---|---|
| Grant revenue | $ 24,000 | $ 0 | $ 0 | $ 0 | $ 24,000 | $ 19,247 |
| Revenue & royalties | 2,820 | 324,685 | 183,165 | 0 | 510,676 | 996,120 |
| Investment income | 20,028 | 12,577 | 11,821 | 5,954 | 50,374 | 64,633 |
| | 46,848 | 337,262 | 194,986 | 5,954 | 585,050 | 1,080,000 |
| Expenses | 25,551 | 219,459 | 250,735 | 617 | 494,352 | 1,721,942 |
| Net surplus (deficit) for the year | 21,297 | 117,803 | (55,749) | 5,337 | 90,698 | (641,942) |
| Fund balance, beginning of year | 24,000 | 202,941 | 293,655 | 144,549 | 665,727 | 1,307,680 |
| Transfer to unclaimed expenditures | (425,153) | 0 | 0 | 0 | (425,153) | 0 |
| Transfer from other funds | 400,000 | 0 | 0 | 812 | 400,812 | (111) |
| Fund balance, end of year | $ 20,144 | $ 320,744 | $ 237,906 | $ 150,698 | $ 665,727 | $ 1,138,455 |

**Revenues and expenses related to this fund consist of:**

### 4. LIABILITY FOR DISSOLUTION OF PROGRAM

The Niagara Tender Fruit Lands program was cancelled in July, 1995 after grant income of $5,759,000 had been received and costs of $1,400 had been incurred under agreements, which had been entered into. There have been claims filed against ARIO for breach of contract due to the cancellation of the program. Any residual funds are expected to be returned to the Ontario government through the Ministry of Agriculture and Food. If claims exceed the fund balance, the Ontario government, through the Ministry of Agriculture and Food, will be responsible for the shortfall.

### 5. STATEMENT OF CASH FLOWS

A statement of cash flows has not been presented, as it would provide no additional meaningful information.

### 6. COMPARATIVE FIGURES

Prior year's figures have been reclassified to conform with the current year presentation.

# Financial Information

## Notes to the Financial Statements For the year ending March 31, 2003

(d) RESTRICTIONS ON THE EXPENDITURE OF FUNDS

The purpose, funding, terms and conditions, and duration of each research trust fund are stipulated in the relevant Order-in-Council, Memorandum of Understanding or Ministry correspondence.

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### 3. ARIO RESEARCH FUND

| | Designated Funds | Seed Royalty | Technology Royalty | Unpledged Equity | Total 2003 | Total 2002 |
|---|---|---|---|---|---|---|
| Grant revenue | $ 24,000 | $ 0 | $ 0 | $ 0 | $ 24,000 | $ 19,247 |
| Revenue & royalties | 2,826 | 324,685 | 183,165 | 0 | 510,676 | 996 ,120 |
| Investment income | 20,022 | 12,577 | 11,821 | 5,954 | 50,374 | 64,633 |
| | 46,848 | 337,262 | 194,986 | 5,954 | 585,050 | 1,080,000 |
| Expenses | 23,551 | 219,459 | 250,725 | 617 | 494,352 | 1,721,942 |
| Net surplus (deficit) for the year | 23,297 | 117,803 | (55,739) | 5,337 | 90,698 | (641,942) |
| Fund balance, beginning of year | 24,604 | 202,941 | 293,633 | 144,549 | 665,727 | 1,307,680 |
| Transfer to unclaimed expenditures | (425,153) | 0 | 0 | 0 | (425,153) | 0 |
| Transfer from other funds | 400,000 | 0 | 0 | 812 | 400,812 | (11) |
| Fund balance, end of year | $ 22,748 | $ 320,744 | $ 237,894 | $ 150,698 | $ 665,727 | $ 1,138,455 |

**Revenues and expenses related to this fund consist of:**

### 4. LIABILITY FOR DISSOLUTION OF PROGRAM

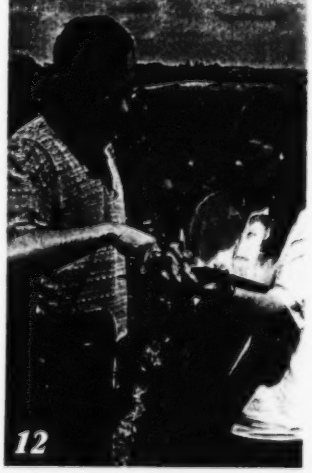
The Niagara Tender Fruit Lands program was cancelled in July, 1995 after grant income of $3,759,000 had been received and costs of $1,400 had been incurred under agreements, which had been entered into. There have been claims filed against ARIO for breach of contract due to the cancellation of the program. Any residual funds are expected to be returned to the Ontario government through the Ministry of Agriculture and Food. If claims exceed the fund balance, the Ontario government, through the Ministry of Agriculture and Food, will be responsible for the shortfall.

### 5. STATEMENT OF CASH FLOWS

A statement of cash flows has not been presented, as it would provide no additional meaningful information.

### 6. COMPARATIVE FIGURES

Prior year's figures have been reclassified to conform with the current year presentation.



# ARIO Budget

## 2002-2003 Research Funding

| | Ont. Gov't Funding | ARIO Trust Fund Expense |
|---|---|---|
| **OMAF** | | |
| Innovation & Risk Management branch and Univ. of Guelph Partnership | 34,806,412* | |
| Research funded through seed & tech royalty dollars | | $452,035 |
| **Sub total** | **$34,806,412** | **$452,035** |
| **COMPETITIVE RESEARCH** | | |
| Enhanced Food Quality & Safety | | 75,404 |
| Food Safety | 1,340,000 | 1,021,075 |
| Poultry Baseline Survey | | 199,600 |
| Chicken Industry Study | 400,000 | 12,318 |
| Food Systems 2003 | | 20,158 |
| New Directions | 1,350,000 | 1,532,375 |
| **Sub total** | **$3,090,000** | **$2,860,930** |
| **TOTAL** | $37,896,412 | $3,312,965 |

Innovation and Risk Management Branch also provides secretariat and administrative suppport for ARIO.

* Includes administration and support services of approximately 3%.

## Provincial Investment (1997-98 to 2002-03) in Agriculture, Food & Rural Research and Innovation

| Non-OMAF Provincial Investment (6 years) | Ontario | Canadian Foundation for Innovation | Private Sector | Institution | Totals |
|---|---|---|---|---|---|
| Ontario Innovation Trust | $34,300,000 | 39,000,000 | | 17,200,000 | 90,500,000 |
| Premier's Research Excellence Awards | 300,000 | | | 150,000 | 450,000 |
| Ontario Research & Development Challenge Fund | 13,800,000 | | 13,800,000 | 13,800,000 | 41,400,000 |
| | **48,400,000** | **39,000,000** | **13,800,000** | **31,150,000** | **132,350,000** |

| | OMAF | Leveraged | Total |
|---|---|---|---|
| **OMAF Investment (6 years)** | | | |
| Competitive Research Programs | 10,300,000 | 5,500,000 | 15,800,000 |
| OMAF-University of Guelph Partnership Agreement | 268,000,000 | 190,900,000 | 458,900,000 |
| **OMAF TOTAL** | **278,300,000** | **196,400,000** | **474,700,000** |

| | |
|---|---|
| Total Ontario Government Invested in Research | 326,700,000 |
| Total Other Investments | 280,350,000 |
| **TOTAL INVESTMENT IN RESEARCH** | **607,050,000** |

Note: investment by Ontario Government programs (non-OMAF), Canadian Foundation for Innovation, private sector and Institution includes some of the same funds as counted as OMAF-University of Guelph leveraged funds. It is difficult to separate these funding sources.

# ARIO Schedule of Research Reviews During 2002-2003*

**Schedule of Research Reviews:** **ARIO Meeting:**

1. Plant Program
   Past accomplishments 1998-2002
   State of the Industry report
   Future program objectives, goals, budget :2002-2006 ..... June 2002

2. Plant Program
   Expert Committee Report
   Future program 2002-2006 wrap-up
   OMAF - University of Guelph Agreement
   research update ..... September 2002

3. Sustainable Rural Communities Program
   Past Accomplishments 1999-2003
   Future Program 2003-2007
   Expert Committee' Report .....November 2002

4. Ontario Agricultural Services Coordinating Committee (OASCC)
   Presentation of annual reports by committee chairs.
   Overview of Resources Management and Environment Program
   1999-2003 and 2003-2007
   Sustainable Rural Communities Proposed Business Plan .....February 2003

For more information, please contact Annette Anderson of
Innovation and Risk Management Branch,
Ontario Ministry of Agriculture and Food,
1 Stone Road West, Guelph, Ontario N1G 4Y2.
Email: annette.anderson@omaf.gov.on.ca
or phone: 519-826-4167

* for research conducted under the OMAF-University of Guelph Agreement.